Human Genetic Engineering

Human genetic engineering can be used to treat genetic disease, but there is a difference between treating the disease in an individual and changing the genome that gets passed down to that person's descendants (germ-line genetic engineering).

Human genetic engineering is already being used on a small scale to allow infertile women with genetic defects in their mitochondria to have children. Healthy human eggs from a second mother are used. The child produced this way has genetic information from two mothers and one father. The changes made are germ line changes and will probably be passed down from generation to generation, and, thus, are a permanent change to the human genome.

Human genetic engineering has the potential to change human beings' appearance, adaptability, intelligence, character, and behavior. It may potentially be used in creating more dramatic changes in humans. There are many unresolved ethical issues and concerns surrounding this technology, and it remains a controversial topic.